



Yavapai Signal

The Yavapai Amateur Radio Club – Prescott, Arizona – DM-34 – Volume 38 – No. 2 — February 2023

Upcoming Club Events				
Event	Date	Time	Place	Contact / Info:
General Meeting	February 2, 2023 Thursday	1900 MST 7 p.m.	Freeman Building, Prescott Rodeo Grounds	Club Website
YARC Breakfast	February 16, 2023 Thursday	0800 MST 8 a.m.	Backburner Restaurant, Prescott Valley	Don WB7TPH or Jeff WB7RFY
Transmitter Hunt	February 4, 2023 Saturday	1300 MST 1 p.m.	OneAZ Credit Union parking lot, Gail Gardner Way & Willow Creek Rd., Prescott	Pete K6VVR or John WB9VGJ
General Meeting Programs — See page 3.				
Public Service Communications — See page 7.				
Amateur Radio License Testing — See page 9.				

YARC:	Badges	Patches	Shirts
Features:	Name & Call	Club Name & Logo	With or Without Name & Call
Contact Person(s):	Jane Lerette K7ZHF	Jane Lerette K7ZHF	Pete Morrison K6VVR
Cost:	\$13.00 each	\$6.00 each	Without Name & Call \$20.00 — With Name & Call \$24.00 each

Club Website Registration

In order to receive the Signal (the club's official newsletter), you must be a member of the club. Make sure your email is correct by logging into our website (www.w7yrc.org), then clicking on the member tab and viewing your profile.

Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliate Special Service Club. The club participates in many activities in the quad-city (Prescott, Prescott Valley, Chino Valley, and Dewey-Humboldt) area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00 per year (full-time students \$15). YARC general meetings are usually at 1900 MST (7 p.m.) on the first Thursday of every month at the Danny Freeman Building, Prescott Rodeo Grounds, 840 Rodeo Drive in Prescott

www.w7yrc.org

YAVAPAI AMATEUR RADIO CLUB – PO BOX 11994 – PRESCOTT AZ 86304-1994

Club Nets

Band	Mode	Frequency	PL	Day or Night	Time
2M 70cm	FM	146.880 MHz 447.650 MHz	- 100.0 Hz	Mon. through Fri.	1300 MST 1 p.m.
2M 70cm	FM	146.880 MHz 447.650 MHz	- 100.0 Hz	Wednesday	1900 MST 7 p.m.
6M	FM	52.060 MHz / I 52.560 MHz / O	- 100.0 Hz	Friday	1830 MST 6:30 p.m.
10M	SSB (USB)	28.444 MHz +/- QRM	N/A	Thursday	2000 MST 8 p.m.
2M 70cm	FM	146.880 MHz 447.650 MHz	- 100.0 Hz	Saturday	0900 MST 9 a.m.

Yavapai County ARES/RACES Nets					
2M	FM	147.260 MHz	+103.5 Hz	Monday	1830 MST 6:30 p.m.
2M	FM	145.290 MHz	-127.3 Hz	Monday	1900 MST 7 p.m.

Submission Deadline for the Yavapai Signal from editor Loren Singh, AE7CG

The usual deadline for submission of articles and photos to appear in the Yavapai Signal is the 18th calendar day of each month. That gives me time to edit and format submissions, and to have the newsletter available for distribution to the club membership by the 20th calendar day of each month. The aim is to have the newsletter in the hands of club members approximately 10 days or so before the holding of the general meetings on the first Thursday of each month.

ae7cg@arrl.net

Share Your Surplus Items

Bring any ham related surplus items that you no longer need to the next club meeting. There will be a table at the meeting where your items can be placed. Let your fellow club member take those things that they want. The table will be available at each monthly meeting.

Canned Food Donations

Bring your non-perishable food items to the monthly club meetings and Terry Pemberton KB7TRE will take them to the local food bank. Give your bagged items to Terry.



From the President's Desk
by Raymond Kolman, KI7COM

ARRL Kids Day was held January 7, 2023 at Heather and David Anderson's home in Dewey. The Mayor of Prescott Valley, Kell Palguta, stopped by to see what we are doing to encourage our youth to be involved in Ham Radio. Ron Shimek W7WWB sent an email to the mayor explaining the purpose of the event and thanking him for attending.

I was amazed at the number of club members who helped set up and support this event. Many thanks to the Elmers, past and present Board members, and members of the general membership. Our club could not make these events successful without your help. Great job everyone!

Don't be afraid to participate in any of the club's events. I took on the challenge to be more "radioactive" by hosting one of the Wednesday night nets at 7 p.m. in January. We also have a new lunch bunch net every Monday at noon, hosted by Bill Noe WG7W. The more each of us do, the more prepared we will be in the event of an emergency situation. Hosting one of the nets is an easy way to become involved and to volunteer. You just might find that volunteering can be a fun and rewarding experience. Go to <https://www.w7yrc.org/> and click on events to see what events are coming up and then volunteer.

Meeting Minutes

By decision of the board of directors, minutes of the board and general meeting minutes will no longer appear in the Yavapai Signal. They are posted online at the club's website.

www.w7yrc.org → [Members](#) → [Login](#) → [Reports](#)

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→ [Board Minutes](#)

→ [Club Minutes](#)

Upcoming General Meeting Programs, 2023
by Mike Reid, WU7V

<u>Month:</u>	<u>Program:</u>
February	<p>"How to Build a 2-Meter Tape Measure Yagi Antenna," by Pete Morrison, K6VVR</p> <p>Pete will be bringing all the materials for you to build an inexpensive 2M antenna that works very well. He will be providing 30 antenna kits. The kits will be built during the meeting. The cost of each kit will be \$15.00, but free for members of the kids group.</p>
March	<p>What about DMR Radio Mode?</p>
April	<p>Rick Paquette W7RAP, ARRL Section Manager, will present an update about what is happening at ARRL.</p>

Mentor Buddies — Revised October 27, 2022
by Bill Noe, WG7W

Name	Call Sign	E-mail	Telephone
Don Bauer	WB7TPH	dbauer2250@aol.com	928.775.4690
Art Protas	KG6AY	kg6ay.dm34@gmail.com	928.227.2954
Jerry Warzaha	W7FNC	jerry.warzaha@hotmail.com	612.205.3810
Bill Noe	WG7W	wq7w@arrl.net	928.710.6925
Mike Belanger	W1DGL	fix_broke_airplanes@hotmail.com	928.710.2565
Ron Purcell	KI7EVK	728rwp@gmail.com	707.849.7099
Jack Szelka	A11K	radioaik@gmail.com	401.580.0330
Mike Reid	WU7V	mdr126@gmail.com	480.250.6093
Sandy Meadowcroft	KF4JHC	sandymeado2@yahoo.com	928.660.8323

Next T-Hunt — Saturday, February 4, 2023
by Pete Morrison, K6VVR

Participants should gather at 1300 MST (1 p.m.) in the parking lot at OneAZ Credit Union, located at Gail Gardner Way and Willow Creek Road in Prescott. If you have any questions, feel free to contact Pete Morrison K6VVR or John Broughton WB9VGJ.

Note: The basic plan for T-Hunts during calendar year 2023 will be to schedule the events on Saturdays after each month's Thursday general meeting. If a general meeting is canceled or rescheduled (as, for example, in July), the T-Hunt may also be canceled or rescheduled.

The Saturday Stalwarts — 447.650 MHz
YARC Coffee Net — Saturday, 0900 MST (9 a.m.)

Mike K7LMJ serves as the net control station every Saturday morning. Join the loyal crew on the net, including Loren AE7CG, Wayne WA7IGI, Karen KK7AVF, and Kevin KJ7NGS.

ARRL Kids Day, January 7, 2023
by Ronald Shimek, W7WWB

The Yavapai Amateur Radio Club (YARC) sponsored the ARRL (American Radio Relay League) Kids Day event on Sunday, January 7, 2023. The event is held to introduce young people to amateur radio hobby by letting them operate radio transmitting and receiving equipment under the supervision of licensed adult amateur radio operators. This year, the event was held at the home of Heather (W8GEM) and David (K1AN) Anderson in Dewey, Arizona. Radio contacts were made on the VHF and UHF portions of the radio spectrum. Each child who participated received a certificate. The club extends its appreciation for Heather and David opening up their home for the event to take place. Prescott Valley Mayor Kell Palguta visited the event, and encouraged the children to learn more about radio communication.

(Black and white photos on the following pages are courtesy of Ronald Shimek W7WWB)





Terry Pemberton KB7TRE with Kids Day participant



Young Lady Operator and David Anderson K1AN



Kids Day participant with Heather Anderson W8GEM



Heather W8GEM and David K1AN Anderson with YARC President Raymond Kolman K17COM



Upcoming YARC Public Service Events

by Frank Bender, K8FB

While these enjoyable events support our community, you can also improve your operating skills, test your portable/mobile equipment, and meet different club members - all in beautiful outdoor areas surrounding Prescott. If you are new or inexperienced to these events, Don Sears N7PLL and Frank Bender K8FB will pair you up with someone experienced.

You can find the 2023 calendar of public service events on the YARC website at

<http://www.w7yrc.org/public-service-events/>.

We look forward to your participation in the club's public service events in 2023.

April 15, 2023 — Whiskey Basin Trail Runs (WBTR)

The first public service event of 2023 is the Whiskey Basin Trail Runs on April 15. This event has several runs on the Prescott Circle Trail that go for as long as 54 miles. Because of the duration of this event, we need two shifts of operators to staff the WBTR. If you are interested in participating in this event, contact Don Sears N7PLL (donsears@zoho.com).

April 28, 29, and 30, 2023 — Whiskey Off Road (WOR) Bike Event

The three day WOR Bike Event is our premiere public service event. We need 45 to 50 volunteers to support this event. The 15 mile fun ride is on Friday afternoon. The amateur 30 and 50 mile races are on Saturday, and the 50 mile professional races are on Sunday. As a result of running the 50 mile races on two days, Saturday should be a lot more manageable than in 2022, when all 50 mile races were run on one day. We are also in need, on all three days, of radio operators who have trucks and vehicles with bike racks to pick up broken down bikes and riders. There is also a need for side by side/ATV vehicles with radios to patrol some of the more isolated areas of the race courses. If you have a motorcycle, we are need of someone to patrol one uphill dirt segment of Copper Basin Road that is highly congested with bikes on Saturday and Sunday. We are also in need of several high clearance, four by four vehicles, to position at remote locations. The organizer for this event is Frank Bender K8FB (fhb47@hotmail.com).

Other Public Service Events in May, June, and July 2023

Groom Creek Mountain Mayhem – May 20, 2023 Contact: Frank Bender K8FB (fhb47@hotmail.com)

Yarnell Memorial Run – June 3, 2023 Contact: Doug Jarmoth NØDAJ (n0daj1950@gmail.com)

Prescott Rodeo Parade – July 1, 2023 Contact: John Snedden KT7P (kt7p19@gmail.com)

2023 Prescott Hamfest

by Frank Bender, K8FB

The 2023 Prescott Hamfest will be held on May 13, 2023 at the Granville Elementary School in Prescott Valley. We will have a swapfest where hams will sell their used radio equipment.

Hamfest Volunteers Needed

We are in need of volunteers to help staff the hamfest on Saturday, May 13. Volunteers are needed from 0600 through 1300.

If you are interested in helping out, please contact our Volunteer Coordinator, Bill Kienzle KJ7UHI at wek10@comcast.net.

Let Bill know the hours of your availability, any areas of interest, and any physical limitations.

Hamfest Grand Prizes

The following are the grand prizes which will be raffled at the hamfest. You do not need to be present to win these prizes.

- ⌚ Yaesu FT-991A HF/VHF/UHF Transceiver
- ⌚ Comet CAA-500 Antenna Analyzer generously donated jointly by The DX Store, owned by our club member Jim Shryne N6DHz, and Comet Antennas
- ⌚ Four Yaesu FT-4XR handheld transceivers (separate prizes)

February Grand Prize Raffle Ticket Sales/Drawing

Congratulations to Byron Wilkinson KK7BFL who won \$20 worth of grand prize raffle tickets at January's YARC general meeting. We will be selling 2022 Prescott Hamfest Grand Prize Raffle Tickets at the February 2, 2023 YARC general meeting. Anyone who purchases at least \$10 of raffle tickets will have their name entered for a drawing of \$20 worth of grand prize raffle tickets. Your name and call will be entered in the drawing for each \$10 worth of tickets that you purchase for that month or at the meeting. You can also purchase raffle tickets online at the hamfest website.

Reserve Hamfest Tailgating Spaces

You can now go to www.prescotthamfest.com to reserve tailgating spaces at the hamfest.





January 2023 Foxhunt
by John Broughton, WB9VGJ

The January foxhunt was held Saturday, January 7, 2023. were the foxes. Robert WA6FBA, Bob WB6ODR, and Brian KK7BFL were the foxes

There were two teams for this hunt:

1	Pete K6VVR, Jerry KF7FPD, and Don KI7IOM
2	Jeff WB7RFY, Rich WB7NRM, and John WB9VGJ

The results of the hunt were:

Finish	Team	Time
1	1	45 min.
DNF	2	—

The foxes hid the transmitters at the corner of Frederick Lane and Panorama Dr.

This was another frustrating hunt. At the starting point we had a strong signal that appeared to come from the SW. So, we headed to the Pioneer Cemetery to get another reading. We could not hear the primary transmitter there. We headed west a couple of miles and still no signal. We then headed east and south and no signal. So, we went up to the Pioneer Home and still no signal. We could not believe it. We then figured it might be north of the starting point, so we went to Rosser St. We were still unable to copy the primary transmitter but could copy the secondary. We drove around a large area east of Willow Creek Rd. and north of Rosser up and down numerous streets.

We finally called it quits when one of the foxes called us to ask how we were doing about an hour after Team 1 found the transmitter. He gave us the location and we went there to see the setup. We did not copy the primary transmitter until we got there and the signal was only three bars on our receiver while the secondary transmitter was full scale. The primary transmitter was on a metal strap running up and down a pole on the north side which put the antenna right next to the metal. The winning team said they had a strong signal the whole hunt. We could not understand that as WB7NRM could not copy the primary transmitter on his HT until we got there. It defies explanation. I guess we were in the Twilight Zone. ☺

Congratulations to Team #1. There are no pictures to post for this hunt.

The participants went to the Prescott Junction restaurant for after-the-hunt socializing and telling of tall tales.

We invite anyone interested in foxhunting, especially anyone who has not done it before, to join us. Those new to the hobby can ride with an experienced hunter. We always have a good time, win, lose or draw.



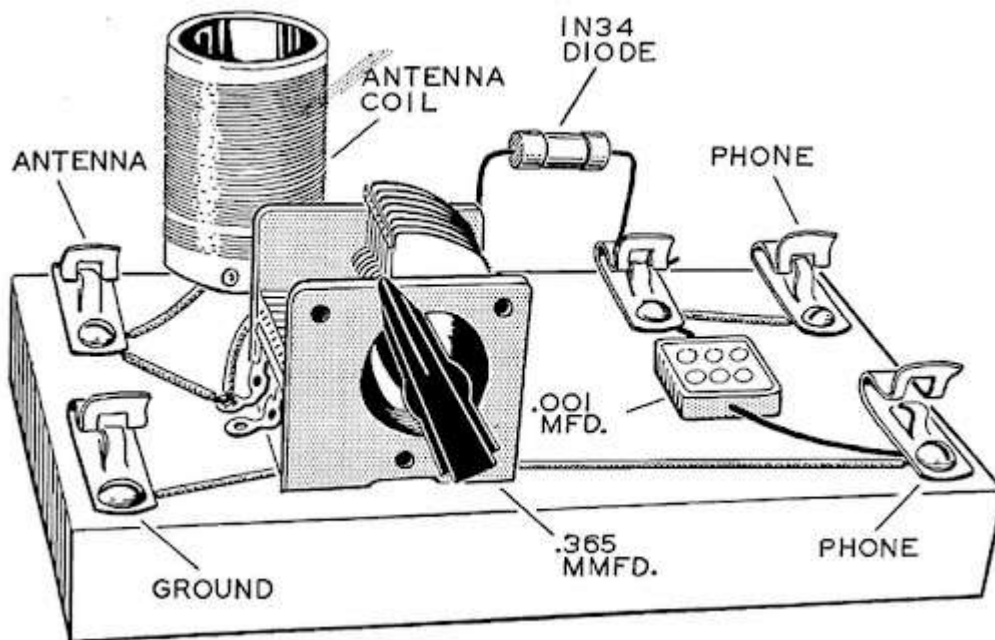
License Testing

by Don Bauer, WB7TPH

Remember, the FCC Application Fee is now in effect. That means that new licensees will be assessed a \$35 registration fee directly from the FCC. It is delaying the receipt of licenses just a bit, depending on how quickly the candidate responds to the email from FCC.

A note to all our Technician licensees: Upgrading to General is not that difficult and it is very rewarding. We have mentors and classes to help. Try it, you'll like it! And, the fee does not apply to simple upgrades.

Upcoming License Testing						
Date	City	Location	Time	Sponsor	Contact	Walk-in
02/04/23	Prescott	Jeep Posse Building	9 a.m.	Yavapai ARC	Don Bauer 928.775.4690	Yes
04/01/23	Prescott	Jeep Posse Building	9 a.m.	Yavapai ARC	Don Bauer 928.775.4690	Yes





A Snowy Top Band Adventure
by Jim Peterson, K6EI

from The Heterodyne, newsletter of the West Valley Amateur Radio Association (San José, California),
January 2023

This was my sixth year doing December's ARRL 160 contest from my cabin at Loon Lake, WA (north of Spokane in Eastern Washington.) Back home in Sunnyvale, I can only dream about putting up crazy-big wire antennas on Top Band. But at the Loon Lake cabin during the winter months when all the neighboring cabins are vacant, I can deploy big wire antennas with total abandon — extending my temporary antennas far beyond my property's boundary. The only catch is that Eastern Washington's weather near the Idaho and Canadian borders in December can be a mixed bag.

My transmit antennas this year consisted of an inverted-L (75ft vertical, 80ft horizontal) suspended from pine trees. Since this antenna is somewhat longer than 1/4 wavelength, I used a series capacitor made from RG-8 coax (about 150pF) to bring the antenna to resonance with a feed point impedance of almost exactly 50 ohms. My secondary transmit antenna was an NVIS (Near Vertical Incidence Skywave) dipole up 50ft on a hilltop (effective height ~150ft). The inverted L was my primary transmit antenna and out-performed the dipole at distances greater than ~500 miles. The NVIS dipole performed well for my West Coast contacts.

I installed a separate receive antenna consisting of a low dipole (up about 10 feet) which was located 500ft away from most power lines on higher hilltop. I really enjoy using Elecraft's diversity mode with the vertically-polarized transmit antenna going to my left ear and my horizontally-polarized remote receive antenna going to my right ear. It was very cool listening to a weak signal via diversity mode as it would drift back and forth between one ear and the other as a result of propagation.

Major RFI on Friday night (-80dbm) severely limited my QSO count that night. I eventually located a couple power strips in the cabin with built-in surge protectors that were blasting out RFI. Removing those helped a lot. But an apparent secondary noise source was harder to resolve, probably because being out in the woods the local power company doesn't do a very good job of maintaining the power lines and their pole top transformers. As a result, I encountered serious noise on Friday night and again Sunday morning (-87dbm). The noise abated for a while Saturday night and early Sunday (-98dbm), which was when I made more of my East Coast and DX contacts.

Bottom line: I had a great time. For the past two decades, I had always operated QRP for this contest, but this year I chose the low power (100 watt) category. I made 265 contacts and finally completed 160 Worked-All-States.

Breakfast and Lunch Gatherings

There are a number of breakfast and lunch gatherings in the area that are open to all radio amateurs and interested persons. Please let us know of any updates or corrections at info@w7yrc.org.

Third Thursday of the Month – **YARC** holds an informal **breakfast** gathering at the **BackBurner** Restaurant at 0800 MST (8 a.m.). The restaurant is at 8400 Long Mesa Drive in Prescott Valley. Contact Don Bauer WB7TPH or Jeff Hanna WB7RFY.

Second Tuesday of the Month – **Quarter Century Wireless Association (QCWA) brunch** gathering, 1030 MST to 1230 MST (10:30 a.m. to 1230 noon) at the **Golden Corral** Restaurant in Frontier Village in Prescott, off SR-69. You do not have to be a QCWA member to attend.

Every Monday – Dan Nichols (W6SAK SK) Memorial Lunch, starting at 1145 at roving locations.
Contact Bob Rosevear WB7RRQ, 928.910.2273 for more information.

Every Wednesday – Lunch – 1045 MST (10:45 a.m.) at **Costco** – “The Umbrella Club,” now without the umbrellas!





Traveling through Arizona in an Electric Vehicle

from www.reddit.com, January 10, 2023

I bought a Hyundai Ioniq 5. Love it as a car. It's half the price of a Tesla and twice the car. But the problem is the charging network. Tesla has you covered. But this car can't charge up on a Tesla Supercharger. The non-Tesla charging network is very crude at the moment.

Not an issue most of the time. You just charge up at home. Costs pennies and works great. No gas, no oil changes - what's not to love? But on a road trip? Charging becomes an issue. On Sunday I thought I'd drive from Scottsdale to Las Vegas to take in the Consumer Electronics show. I charged up and hit the road.

When I drove my car from Canada to Scottsdale I charged to 100% in Kingman and landed in my garage in Scottsdale with quite a bit left in the tank. Easy. What I didn't realize - "The Valley" is very literal. Phoenix is at 1200 feet above sea level. Kingman is at 3300 feet. We are at the bottom of a really steep valley.

So you might be wondering how much energy it takes to move a 4,600 lb car up a 2100 foot hill to climb out of the valley? Well... a lot. Much more than it takes to roll down that hill. By the time I hit Wickenburg it was pretty clear I was in trouble and needed a charge-up.

A Tesla owner could use the 150 kw Tesla Supercharger in Wickenburg. Me? I found a tiny little 24 kw charger at the Ford dealership. And not to complain too much - thank goodness it was there or I'd still be in Wickenburg. But this charger super old, somewhat flakey and stinking slow. You are in the middle of the desert and there's no charger in any direction for more than 100 miles. If that one charger goes down (which they often do) you could be in serious trouble. After a 1/2 hour charge-up I was back on my way with barely enough juice to reach Kingman where I found a real charger (350 kw) and off to Vegas. If we all had EVs, the entire Greater Phoenix area of 4 million people would be unable to drive north on highway 93 if it wasn't for that one tiny 24kw charger at the Ford dealership.

It's getting better out there but not nearly as fast as people are buying cars. I think it will get a lot worse for EV drivers before it gets better unless there's a huge push to build more charging stations fast.

It's not all bad news. APS has recently installed 3 new rural chargers with another 2 going in. So that's progress. Sedona and Payson got chargers, for example. I used the Sedona charger and it was great.

Arizona is a tourist destination and makes billions of dollars from tourists. If tourists and locals can't drive around the state it's going to cost everybody a lot of cash. Which means lost jobs and either fewer services or higher taxes. Investing in infrastructure, roads, bridges and yes EV charging stations means more money for everybody. Something to think about anyway.

NOTE: To clarify - because this keeps coming up in comments - you can not use a Tesla Supercharger (high speed charger) with a non-Tesla vehicle. There are no adapters but even if there were, non-Teslas still wouldn't charge because Tesla has not enabled this feature in North America. Also you can not use a Level 1 (wall plug) because it would take 3 to 5 days to charge. A Level 2 charger (240 V charger) or a Tesla Destination charger with adapter are not a reasonable option on a road trip except for an overnight charge at your hotel. They take 8 - 10 hours. For a proper road trip you need a Level 3 DC Fast Charger - about 20 min. Sadly there aren't many of those in Arizona outside the big cities yet.



Bob Rosewear WB7RRQ and John Snedden KT7P — Wearing Long Pants!!! An Historic Occasion at the Costco Food Court, Prescott — January 18, 2023 (Photo courtesy of Dave Erlach N5MB)
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The DX Store

sales@dxstore.com

www.dxstore.com



Club Officers, 2023

Officer	Name	Call Sign	Email Address
President	Ray Kolman	KI7COM	president@w7yrc.org
Vice President	Mike Reid	WU7V	vicepresident@w7yrc.org
Treasurer	Jane Lurette	K7ZHF	treasurer@w7yrc.org
Secretary	Tim Norton	K7PVY	secretary@w7yrc.org
Director	Mike Schnell	NC7X	nc7x@w7yrc.org
Director	Debbie Kolman	KD7COM	vista9@hotmail.com
Director	Ron Levine	—	—
Editor Emeritus	Joseph Oliver	AC6AA	ac6aa@arrl.net
Editor	Loren Singh	AE7CG	ae7cg@arrl.net
Webmaster	Robert Reister	WA6FBA	webmaster@w7yrc.org

Yavapai Amateur Radio Club — W7YRC Club Station Access List — Effective January 1, 2023

Permanent Station Access (defined by YARC role) —

Name:	Call:	Lic. Class	Notes:	Telephone:
John Snedden	KT7P	E	YARC Ex-President	909.844.5108 – Do not contact for access
Frank Bender	K8FB	E	YCJP Bldg. Mgr.	928.379.5575 – Do not contact for access
Mike Belanger	W1DGL	E	Club Sta. Mgr.	928.710.2565 – OK to contact for access
Pete Morrison	K6VVR	E	W7YRC Trustee	928.899.8555 – Do not contact for access
Bud Semon	N7CW	E	ARES/RACES DEC	928.899.7400– Do not contact for access
Rob Redford	KG7LMI	G	ARES/RACES ED	623.252.3980– Do not contact for access
Jim Zimmerman	N6KZ	E	Elmer Group	928.713.0542 – OK to contact for access
Art Protas	KG6AY	E	Elmer Group	928.227.2954 – OK to contact for access
Doug Freeman	KV8TD	E	N7GMH Trustee	928.759.0958 – Do not contact for access

Building Access for Other Reasons (includes station access) —

Donald Bauer	WB7TPH	E	VE Chair	928.775.4690 – Do not contact for access
Kathy Laing	KJ6KMK	E	License Classes	928.778.2526 – Do not contact for access

Rotating Access (changes every July 1st) —

This category is limited and consists of volunteer members —

Jim Custer	WØHJ	E	Rotating Member	507.720.4053 – OK to contact for access
Tony Jackson	K6PSR	G	Rotating Member	562.644.0528 – OK to contact for access

Note to YARC Members —

**For station access, first try to contact the Rotating Access members.
If you are not able to contact the Rotating Access members, then try to contact the other “OK to contact for access” members.**

